# Increasing Local Food Inputs & Food Processing in Cowichan

# Feasibility Study

FINAL

*for*

Small Scale Food Processor Association

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# Acronyms

| | |
|---|---|
| AGRI | BC Ministry of Agriculture |
| CGC | Cowichan Green Community |
| CRA | Canada Revenue Agency |
| CSA | Community Supported Agriculture |
| CVCM | Cowichan Valley Co-operative Marketplace |
| CVRD | Cowichan Valley Regional District |
| GAP | Good Agricultural Practices |
| GFS | Gordon Food Services |
| HACCP | Hazard Analysis and Critical Control Points |
| IH | Island Health |
| SSFPA | Small Scale Food Processor Association |

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# Executive Summary

Cowichan is an agriculturally productive region with well-established farms, a diversity of crops, and a developing food processing sector. The demand for local food is a noted consumer trend across BC and within Cowichan. This feasibility study contributes to the growing body of research to support the food sector in Cowichan and assesses the opportunities for more local foods to be purchased by Cowichan food processors and institutional markets.

The project aims to meet the following objectives:

- To quantify the demand for local food inputs from food processors and the demand within institutional (health care facilities and private schools) settings and other emerging markets in Cowichan.
- To detail the equipment, labelling, and related food processing infrastructure that is required at the small-scale level to meet the identified demands, and to articulate the governance and business development models that could support shared equipment and infrastructure models.
- To enhance communication and collaboration between industry organizations, local producers and food processors, and local and regional governments.
- To identify capacity issues for local food producers related to value-added production and to suggest ways of addressing these issues through collaboration with the Small Scale Food Processor Association (SSFPA).

To achieve these objectives, research methods included conducting an online survey, one-on-one interviews with food processors and institutions, and presenting preliminary findings to the Cowichan food sector at the 2020 Island Agriculture Show.

It is important to note, that while the report was being concluded, the COVID-19 pandemic and its effect on the marketplace, came into full force. While this has a clear affect on any steps taken with the feasibility study, this study should provide value as a living document in consideration of the changes to the marketplace.

The results of the study found the following related to the project's objectives:

## Food Processors

### Demand for Local Food Inputs

- Cowichan processors are interested in using more local foods in their products.
- Processors interviewed were already using some, but limited, amounts of local Cowichan grown food products.
- Processors are interested in working with Cowichan farmers to identify niche products that would meet their processing needs.

### Challenges for Purchasing Local Food Inputs

- Several processors require very specific products/technologies (e.g. Enwave dehydration, precise nutrient contents), which can make it difficult to source local food inputs.
- Some food inputs required for their products are not grown within Cowichan (e.g. oils, rice).
- Processors note a (real or perceived) higher price for local products.
- Processors are unsure how to connect and communicate with local growers and don't know who to contact about the local foods they require.

### Challenges to Growing Processing Businesses & Accessing Institutional Markets

- Finding and retaining skilled labour.
- Capital for research and development for product innovation and development.
- Access to business support services.
- Difficulty entering new markets.

## Institutional (Health & Educational) Facilities

### Demand for Local Food Inputs

- Some Cowichan private schools source very small volumes of produce and eggs directly from Cowichan farmers when in season.
- Most government-supported health care facilities and private schools' source the majority of their foods from large distributors (e.g. Sysco, Gordon Food Service).
- Private assisted living facilities are individually small (e.g. 5-30 residents) and most often purchase foods at grocery stores (e.g. Old Farm Market, Superstore, Costco).
- All institutional facilities interviewed are interested in purchasing more Cowichan grown foods.

### Challenges of Purchasing Local Food Inputs

- The real or perceived higher prices of local products may present challenges for some institutions' budgets.
- The seasonality of local foods makes continuous purchasing from local suppliers difficult.
- Institutions need a guarantee of consistent volumes and quality of foods, as well as direct, flexible delivery to facilities and easy, consistent communication with suppliers.
- Government-supported health care facilities need food products that have Canada Good Agricultural Practices (GAP) certification and Hazard Analysis and Critical Control Points (HACCP) certification.

## Opportunities to Increase Local Food Inputs

- Processors want to work directly with farmers to source specialized food inputs and work on purchasing contracts.
- Private schools and privately-run assisted living facilities often have more flexibility/autonomy as to where and how they purchase foods than government-supported health care facilities.
- Private schools have more flexibility in budgets for purchasing local foods if other requirements such as consistency in volume, quality, and delivery are met.
- Partnerships can be facilitated between farmers, food processors, and institutions to discuss specific needs and connect local food businesses with local buyers.
- The provincial AGRI FeedBC initiative provides good resources for working with government-supported health care facilities in Cowichan. FeedBC has identified a list of top 20 in-demand foods and “one-step” processed foods (e.g. pre-made salads, chopped vegetables) desired by government-supported health care facilities.

## Opportunities for Shared Food Processing Infrastructure & Equipment

- There is demand from Cowichan small-scale food processors for shared equipment such as, a dehydrator, canner, temperature-controlled storage, packaging and labelling line. As well as demands for shared services such as: food/nutritional testing, equipment repair, business development, regulation navigation, and product development.
- Currently in Cowichan there are two initiatives involving shared equipment and infrastructure, both are initiatives of the Cowichan Green Community (CGC):
    - “The Station” is small commercial kitchen with some food processing equipment; geared towards very small-scale food processors.
    - The Food Hub initiative, which is in the early stages of development, establishes a larger shared commercial kitchen/food processing warehouse for small-scale food processors and producers.
- Shared infrastructure and equipment may be an opportunity for small-scale food processors to reduce capital costs. Factors that can help sharing initiatives be successful include:
    - Forming key partnerships and determining key resources/infrastructure.
    - Attracting, maintaining, and establishing the right mix of customers.
    - Finding a clear champion and strong manager.
    - Cultivating highly engaged food producers and processors.
    - Setting a path to profitability and securing the right level of funding.

## Recommendations

Based on the stakeholder interviews and results of the feasibility study analysis, 10 recommended actions along with lead and supporting actors were identified and fall under three key themes.

| Theme 1: Facilitate connections between producers, food processors, and purchasers. |
|---|
| **1.1** Host in-person workshops for producers, food processors, and purchasers to connect. |
| **1.2** Learn from the FeedBC initiative and associated projects and pilot programs and apply lessons learned to the Cowichan context. |
| **1.3** Continue discussions with Island Health facilities for procuring local food products. |
| **1.4** Investigate the possibility of Cowichan Valley Regional District (CVRD) facilities procuring more local food products. |
| **Theme 2: Support the development of local food businesses.** |
| **2.1** Offer additional entrepreneurial training programs for business start-ups. |
| **2.2** Facilitate information sharing and training on federal and provincial food safety certifications. |
| **2.3** Connect processors with research and development resources to improve products. |
| **2.4** Connect processors with established branding/marketing initiatives. |
| **Theme 3: Continue to investigate shared infrastructure and equipment options.** |
| **3.1** Support the CGC Food Hub Initiative project. |
| **3.2** Conduct a detailed market feasibility study for a specific primary processed product(s), including considerations for equipment sharing. |

As this report was being finalized, the COVID-19 pandemic and its effects on the marketplace came into full force. Obviously, this situation affects short, mid, and long-term planning considerations for any food hub initiative. Key elements from this report are very much applicable in this situation, and in fact, could point to opportunities and solutions to better address the market changes due to COVID-19. Following Theme 3, in the table above, it is suggested that there be a continuation to investigate and understand the shifts in the marketplace and the needs of the local community, and institutions themselves.

# 1.0 Project Objectives

Numerous initiatives and research studies have occurred and are on-going in Cowichan to advance the local food economy. This project contributes to the growing knowledge about the food sector in Cowichan and will support food and farm businesses by advancing opportunities for more local foods to be purchased by regional processors and institutions. The primary focus of this project is to comprehensively meet the below short-term objectives, while exploring solutions to meet the medium-term objectives.

### Short-term Objectives

- To quantify the demand for local food inputs at existing food processing locations in Cowichan.
- To quantify the demand within institutional (health and education) settings and other emerging markets in the region for processed foods.
- To detail the equipment, labelling, and related food processing infrastructure that is required at the small-scale level to meet the identified demands.

### Medium-term Objectives

- To articulate the private, not-for-profit and co-operative partnerships, governance and business development models that could support shared equipment and infrastructure models.
- To enhance communication and collaboration between industry organizations, local producers and food processors, and local and regional governments.
- To identify capacity issues for local food producers related to value-added production and to suggest ways of addressing these issues through collaboration with the Small Scale Food Processor Association (SSFPA).

# 2.0 Project Background

In 2014, the SSFPA was one of many stakeholders who contributed to the development of a food processing study produced for the Cowichan Valley Regional District (CVRD). The BC Agriculture and Food Climate Action Initiative funded the study, authored by Sustainability Ventures. Entitled *Creating Climate Change Resilience: Enhancing Food Processing in the CVRD,* the study made several key recommendations for advancing food processing in the region, including, among others:

- Encourage food buyers to buy from local processors.
- Provide training/support for food entrepreneurs.
- Establish a shared use processing facility with a test kitchen.
- Create a food hub with processing, storage, distribution and retail sales.

Since 2014, advances have taken place in the CVRD and within the BC Ministry of Agriculture (AGRI) that speak to these recommendations. Cowichan Green Community (CGC) partnered with the Cowichan Valley Co-operative Marketplace (CVCM) to launch the Cow-op.ca initiative, which promotes online food sales under a non-profit farmer and food processor co-operative model. The CVCM was launched in 2015 and is still active today as an online platform to purchase locally grown and made foods. The CGC is currently working on a Food Hub initiative to connect more local producers and food processors with local buyers in the region. The CVRD's economic development arm, Economic Development Cowichan, is working with the AGRI on a Land Matching Program for emerging producers in the region through Young Agrarians. The CVRD continues to be supportive of the agriculture and food processing sector as highlighted in their 2018-2022 economic development strategic plan[1].

Currently, AGRI is undertaking an initiative called FeedBC which has the goal to "encourage, inspire, and support long-term system changes that will increase the use of BC-grown and processed foods in hospitals, schools, and other government-supported facilities[2]". The province is using a systems change approach for institutional procurement, aiming to build capacity along the entire value chain by helping farmers, fishers, and processors to have an adequate supply of institution-ready BC foods, thereby encourage distributors to carry these foods, and facilities to commit to choosing these products. In March 2019, the government launched the "FeedBC Interior Health Project" which is a project to bring more BC food to Interior Health facilities and long-term care facilities in BC's southern interior. A result from this project is the creation of a 'how to' guide for producers and processor to consult in order to sell to BC's government-supported facilities[3], along with other studies on market opportunities for BC food businesses[4]. These provincial resources will be an important complement to the food system work occurring throughout Cowichan and are opportunities to provide guidance in local food system work.

Opportunities exist now to further support Cowichan food production and processing by clearly defining the demand for local food inputs in a variety of emerging markets.

# 3.0 Project Methodology

This feasibility study was completed in three phases using a variety of methods to achieve the objectives. Phase 1 involved assessing the demand for local food products to determine the volume of input substitution from local food producers that can occur at the regional level. This was accomplished by primary stakeholder engagement and an in-depth background review of reports and research done by previous local food production and processing studies in the region and province. Primary stakeholder engagement involved conducting interviews (by phone and in-person) with local food processors and potential food purchasers (e.g. health and education institutions and other emerging markets). A survey was also crafted and distributed to food processors in the region through local food organizations' emailing lists. Despite multiple and varied attempts to solicit a stronger response rate, the number of survey responses received from food processors was lower than anticipated. Accordingly, the project methodology was adapted, and an additional round of stakeholder outreach was added to Phase 3. Appendices A and C provide further details of the Phase 1 stakeholder engagement and background review.

[1] Economic Development Cowichan, Strategic Plan 2018-2022. Cowichan Valley Regional District.
[2] Bringing more BC food into BC government facilities. 2019. BC Ministry of Agriculture.
[3] Selling B.C. Food to B.C.'s Government-Supported Facilities. 2019. FS Strategy.
[4] FeedBC Resources. BC Ministry of Agriculture.

Phase 2 of the project involved examining the demand for food processing infrastructure to uncover options for small-scale infrastructure and equipment investments that will increase the capacity of local producers and processors. Results from the interviews and survey in Phase 1 were used to complete Phase 2, along with secondary research into shared infrastructure and equipment options. Governance and operational models for sharing resources are described and compared and examples of similar initiatives are provided.

Phase 3 of the study involved a stakeholder engagement session at the Island Agriculture Show (February 2020) geared towards connecting Cowichan food processors, producers, and institutions. The preliminary results of the project were presented at the session, and feedback was obtained to inform the recommendations of this report. Additional stakeholder outreach and research was also completed during this phase of the project to meet the objectives.

# 4.0 Project Scope & Context

This section defines the geographic scope of the study and describes key terms used throughout the document. To set the context, a description of the current levels of food production and processing activities within Cowichan are outlined.

## 4.1 Defining Cowichan

The scope of this study area is the entire Cowichan Valley Regional District (Figure 1). This is the area between the Stuart Channel and Saanich Inlet on the east coast of Vancouver Island, and the southern part of the West Coast Trail. The study is particularly focused on eastern areas of the CVRD, where the majority of the population and food businesses exist.

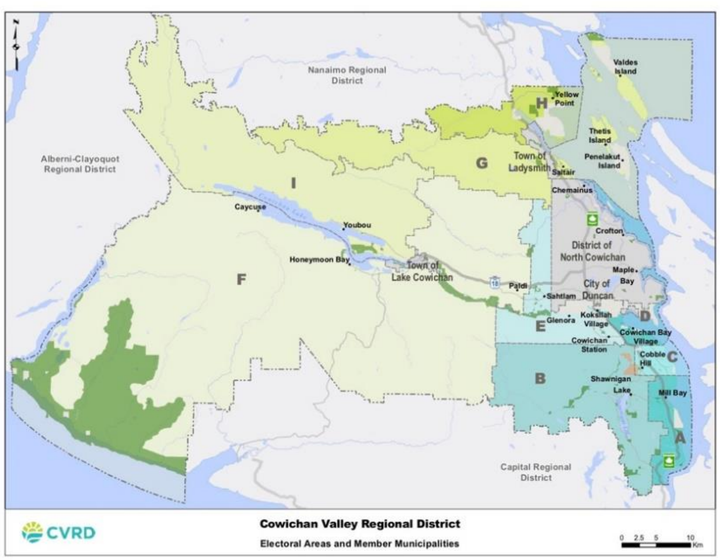

Figure 1 Study Scope (Source: Cowichan Valley Regional District)

## 4.2 Defining Food Processing & Local Foods

Food processing typically takes clean, harvested crops or butchered animal products and uses these to produce marketable food products with a longer shelf-life than raw ingredients. Processed goods include, food, beverage, or natural health products that have been rendered into products for people or animals (e.g. pet food, livestock feed). Processed foods can also involve very minimal handling, such as fruits and vegetables that have been washed, cut, and/or packaged. This study focuses on small-to medium-scale food processing businesses. Small-scale indicates businesses with 5 employees or less and medium-scale businesses have 5-49 employees.[5]

This study attempts to narrow the focus of 'local' to mean foods produced and processed in Cowichan. However, this specific definition of 'local' is difficult to speak to for many food businesses and institutions. Cowichan food businesses may process foods locally, but the product's inputs may not originate from within the same region. It can also be difficult for institutions to know exactly where the food they purchase is originating from if they order goods through large wholesale distributors. For example, some distributors use a 'local' label which can mean Vancouver Island and/or the province. Finally, to some businesses and institutions, the conceptual definition of 'local' foods includes foods originating from across Vancouver Island and/or anywhere in the province. Throughout the report, the scope of 'local' is clarified whenever possible.

## 4.3 Agricultural Production in Cowichan

It is important to provide information on primary food production occurring within Cowichan, in order to understand the availability of local food supply. Table 1 highlights some of the key agricultural activities and how they have changed over time.[6] Notable trends include a relatively stable number of vegetables, fruits, berries, and nuts produced over the 10 years of data provided. There has been a gradual decline both in the area of land in agricultural production and in the number of farms, however the average farm size has stayed fairly stable with an increase in gross farm receipts. The decrease in hay crops (a lower-value crop) and increase in field crops (a higher-value crop) could potentially account for some of the increase in gross farm receipts. Over half of farms sell directly to consumers (340 out of the 632 reporting farms). Farms not selling direct to consumers may have already established contracts and avenues to sell their products, for example, through the existing supply management system, wholesaler contracts, direct retail, or restaurant sales. Some farms are also selling value-added products direct to consumers.

[5] The Government of BC defines small businesses as those with less than 50 employees, and micro businesses (a subset of small businesses) have less than 5 employees. In this study the terminology used is slightly different to align with terminologies used in past studies of CVRD food businesses.
[6] Agriculture in Brief, Cowichan Valley Regional District. 2016. Statistics Canada.

Table 1: Farmland Use, Animal Production & Direct Farm Sale Methods in the CVRD.[7]

| | 2006 | 2011 | 2016 |
|---|---|---|---|
| **Number of Farms** | 700 | 685 | 632 |
| **Total Farmland Area (ha)** | 11,559 | 10,837 | 10,086 |
| **Average Farm Size (ha)** | 16.5 | 15.8 | 16.0 |
| **Total Gross Farm Receipts** | $47,554,455 | $48,069,900 | $57,222,815 |
| **Farmland Use** | | | |
| Hay Crops (ha) | 4,340 | 4,103 | 3,935 |
| Field Crops (ha) | 455 | 857 | 903 |
| Fruits, Berries & Nuts (ha) | 172 | 220 | 205 |
| Vegetables (ha) | 63 | 88 | 93 |
| Greenhouse Vegetable Production (ha) | n/a | n/a | 2.18 |
| **Animal Production Numbers** | | | |
| Hens & Chickens | 281,003 | 209,881 | 226,323 |
| Cattle & Calves | 10,174 | 9,569 | 9,296 |
| Dairy Cows | 3,632 | 3,582 | 3,384 |
| Beef Cows | 1,146 | 946 | 738 |
| Pigs | 952 | 297 | 522 |
| Sheep & Lambs | 2,274 | 2,826 | 2,382 |
| Goats | 1,021 | 712 | 469 |
| Honeybee Colonies | 1,072 | 1,297 | 725 |
| **Farms Selling Direct to Consumers** | | | **340 farms** |
| • Farms Reporting Sales of Unprocessed Agricultural Products. | | | 329 farms |
| • Farms Reporting Sales of Value-added Products. | | | 42 farms |
| • Farms Reporting Using Farm Gate, Stands, Kiosks, U-pick. | | | 321 farms |
| • Farms Reporting Using Farmers' Markets. | | | 61 farms |
| • Farms Reporting Using Community Supported Agriculture. | | | 22 farms |

While these numbers can give us a general sense of the availability of locally produced foods, it is difficult to determine exact quantities of each food product being produced. However, it can be assumed that local food producers cannot fully meet the quantities and diversity of foods desired or required by food processing businesses and/or the regions' health and education facilities. It is acknowledged that some food products will have to be purchased from outside the region by processors and institutions. On the other hand, there are inactive and/or under-producing agricultural lands in Cowichan that have the potential to increase volumes and diversity of products offered to local buyers. Identifying and opening specific markets for agricultural products could increase the productivity of these agricultural lands.

[7] Ibid.

## 4.4 Food Processing Businesses in Cowichan

According to Statistics Canada, in 2017 there were 86 food processing businesses in Cowichan (Table 2). The majority of the businesses (89.5%) employ 19 people or less, indicating the small to medium-scale nature of food processing businesses in the region. Only 9 food businesses employ between 20-99 employees. Current numbers of food processing business size and type are likely to vary from the 2017 numbers; however, this data gives a sense of the diversity and scale of these enterprises. Identifying the types of food businesses helps to a) determine what produce and livestock could be grown and raised within Cowichan to meet the needs of these processors, and b) determine types and supply of processed foods available for sale to institutional and educational purchasers.

Table 2. Type and number of food processing businesses and employees in the Cowichan Valley Regional District[8]. Category: 1* Employee; the establishments in this category do not maintain an employee payroll but may have a workforce which consists of contracted workers, family members and/or business owners.

Table 2: Type & Number of Food Processing Businesses/Employees.[9]

*(Note: The number of business in the table do not add to the total number of businesses; additional details are provided in the footnote.)*

| Type of Food Processing Businesses | Number of businesses | 1* Employees | 1 - 4 Employees | 5 - 9 Employees | 10 - 19 Employees |
|---|---|---|---|---|---|
| Animal (except poultry) Slaughtering | 2 | 1 | 1 | 0 | 0 |
| Breakfast Cereal Manufacturing | 1 | 1 | 0 | 0 | 0 |
| Breweries | 4 | 2 | 0 | 0 | 2 |
| Butter, Cheese, Dry & Condensed Dairy Product Manufacturing | 1 | 0 | 1 | 0 | 0 |
| Coffee & Tea Manufacturing | 6 | 3 | 1 | 2 | 0 |
| Commercial Bakeries & Frozen Bakery Product Manufacturing | 4 | 2 | 0 | 1 | 0 |
| Confectionary Manufacturing from Purchased Chocolate | 2 | 0 | 1 | 0 | 1 |
| Distilleries | 2 | 1 | 1 | 0 | 0 |
| Dog & Cat Food Manufacturing | 3 | 3 | 0 | 0 | 0 |
| Fat & Oil Refining & Blending | 1 | 1 | 0 | 0 | 0 |
| Flavouring Syrup & Concentrate Manufacturing | 2 | 1 | 0 | 0 | 1 |

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[8] BC Food and Beverage Manufacturing Facilities. 2017. Statistics Canada.

[9] Businesses that have 20-29 employees include: one soft drink and ice manufacturing business, one seafood product preparation and packaging business and one commercial bakeries and frozen bakery product manufacturing business. Businesses that have 30-40 employees include: one retail bakery and 2 wineries. Businesses that have 50-99 employees include: one poultry processor, one other animal food manufacturing business and one 'All other food manufacturing' business.

*Table 3: Continued*

| Type of Food Processing Businesses | Number of businesses | 1* Employees | 1 - 4 Employees | 5 - 9 Employees | 10 - 19 Employees |
|---|---|---|---|---|---|
| Flour Mixes, Dough, & Pasta Manufacturing from Purchased Flour | 1 | 0 | 1 | 0 | 0 |
| Fruit & Vegetable Canning, Pickling, Drying | 3 | 3 | 0 | 0 | 0 |
| Ice Cream & Frozen Dessert Manufacturing | 1 | 1 | 0 | 0 | 0 |
| Non-chocolate Confectionery Manufacturing | 2 | 2 | 0 | 0 | 0 |
| Other Animal Food Manufacturing | 2 | 1 | 0 | 0 | 0 |
| Other Snack Food Manufacturing | 3 | 2 | 0 | 1 | 0 |
| Poultry Processing | 3 | 2 | 0 | 0 | 0 |
| Rendering & Meat Processing from Carcasses | 5 | 3 | 2 | 0 | 0 |
| Retail Bakeries | 6 | 2 | 1 | 2 | 0 |
| Seafood Product Preparation & Packaging | 4 | 2 | 1 | 0 | 0 |
| Seasoning & Dressing Manufacturing | 3 | 3 | 0 | 0 | 0 |
| Soft Drink & Ice Manufacturing | 2 | 1 | 0 | 0 | 1 |
| Wineries | 15 | 6 | 2 | 2 | 2 |
| All Other Food Manufacturing | 8 | 4 | 0 | 1 | 2 |
| **Total Number of Businesses** | **86** | **47** | **12** | **9** | **9** |

# 5.0 Understanding the Demand for Local Foods

This section reports the results from stakeholder engagement with food processing businesses and institutional (health and education) facilities. The demand for local food inputs is outlined, along with barriers and challenges to local food purchasing. The needs of stakeholders to purchase more foods are also demonstrated.

## 5.1 Food Processors

Food processing businesses of all types were contacted to participate in this study. A survey was sent to Cowichan-based food processing businesses by email, and several one-on-one interviews were conducted (see Appendix A for engagement details). Additionally, the survey was distributed at the Island Agriculture

Show in February 2020; however, no completed surveys were returned. Overall, there was a low response rate, with a total of six food processors participating in the study, therefore the results are not representative of the entire sector. However, the results are indicative of demand for specific local food inputs and the barriers and needs of some food processing businesses in Cowichan. Secondary resources, such as previous reports completed by CGC, are also used to inform the findings.

## Demand for Local Food Inputs by Processors

Due to the difficulty in defining local foods and confidentiality reasons cited by the interview participants, it was difficult in most cases to obtain firm numbers (volume or dollar amounts) for the use and demand of local foods. However, the results are still useful to get a general sense of some of the local products being used and others that are required by food processors.

Only two food processors interviewed are using local inputs to create their products. One food processor uses small amounts of grass-fed antibiotic-free livers from local livestock (for pet products) and the other uses small amounts of local produce in addition to growing their own produce (for soups and sauces). The majority of food processors interviewed are interested in using more local foods. Some are interested in local produce such as onions, carrots, celery, leeks, potatoes, blueberries, cranberries, strawberries, as well as mushrooms and meats. Several of the food processors need the local produce to be dehydrated and are using a specific type of technology for dehydration (e.g. EnWave drying technology) or have specific requirements they are looking for in the food ingredient. Most food processors are interested in working with local food producers to meet their product's needs.

## Barriers & Needs for Food Processing Businesses

Food processing businesses are not using local foods for several reasons. Some require inputs that are not currently produced in Cowichan and are unlikely to be in the future (e.g. rice, oils, vinegar). Several of the businesses need very specific standards for the inputs they purchase (e.g. for natural health products) which cannot be found locally. The higher price of local inputs is a deterrent for businesses, especially those that sell their products outside of the region. The additional costs are less likely to be accepted by customers that have no association with the Cowichan. Others are not sure who to contact to purchase the local foods they require.

All of the food processors who responded to the survey and interviews would like to improve and expand their businesses but cite several barriers to business development. These include finding and retaining skilled labour, the need to increase efficiencies, research and development help for product improvement, and more access to business support services (e.g. business development and operations, marketing). Some processors also find it difficult to access current distribution channels and to enter new markets (e.g. institutions, export market). Other studies have described the same barriers, along with the difficulties in making the quantities needed to access larger markets[10].

[10] FeedBC Small-Scale Food Producer Feedback on Supplying Institutions Presentation. 2019. Darren Stott & Tim Reeve.

## 5.2 Institutional Procurement

This study focused on the demand for local foods from certain Cowichan market segments, in particular health and educational facilities that offer food as a necessity or convenience for patients or students rather than a core fee-for-service objective (i.e., the facility exists for a purpose other than food service, but must provide food to its clients).[11] Other food sector markets, such as restaurants, were outside the scope of the study. This study specifically focused on health care and assisted living facilities that provide meals to their residents/patients, private schools providing meals to students, and a regional government facility providing food for sale (e.g. cafeteria). There were 12 facilities that participated in this study, including three private schools and six health care facilities. A detailed list of facilities can be found in Appendix A.

### Demand for Local Foods by Health & Educational Facilities

The private schools, health care centres, and assisted living facilities who participated in this study are all interested in offering more local foods on their menus. In many cases these facilities are already purchasing small amounts of foods grown in Cowichan and/or from other locations on Vancouver Island or the Lower Mainland. However, it is difficult for the facilities to determine the quantities of raw inputs and processed foods originating from local sources for a variety of reasons. Many facilities purchase foods wholesale from Sysco and Gordon Food Service and while foods from these distributors may be labelled 'local', this label may refer to products from anywhere in BC. It can, therefore, be difficult for the facilities to know exactly where in BC the ingredients are coming from. Many of the facilities also purchase several unprocessed food inputs (e.g. produce, meats) and prepare the ingredients in an on-site kitchen. This makes it difficult for the facilities to tease out the differences in demand for local unprocessed foods versus local processed foods. Nonetheless, the volumes of food inputs used by the facilities are indicative of the opportunities for more local Cowichan food to be purchased (Table 3).

[11] Selling BC Food to BC's Government-Supported Facilities. October 2019. Prepared for the BC Ministry of Agriculture by FS Strategy.

Table 4. Volumes & Methods of Food Purchasing by Cowichan Facilities Consulted for this Study.

| Facility | Amount of Food ($/month or meals/day) | Method(s) of Food Purchasing |
| --- | --- | --- |
| Private School A | $120,000/month | • Majority purchased through Sysco, GFS, Islands West distributors.<br>• Very small % direct from producers. |
| Private School B | 2,000 meals/day | • Majority purchased through Sysco, GFS, Islands West distributors.<br>• Very small % direct from producers (e.g. in-season apples direct from farmer).<br>• On-school garden for lettuce. |
| Private School C | 700 meals/day | • Majority purchased through GFS and B&C Meats.<br>• Local source of eggs direct from farmer.<br>• Sometimes buy from Old Farm Market. |
| Island Health Authority Facilities (Chemainus Health Care Centre, Cowichan Lodge, and Cowichan Hospital) | 1,050 meals/day | • Majority purchased through Sysco and GFS. |
| Private Assisted Living Facilities* | 270 meals/day<br><br>(*Total of 4 facilities who responded to outreach*) | • Food is purchased in bulk by owners at grocery stores (Super Store, Costco, Thrifty Foods, Old Farm Market.<br>• Some have arrangements with farmers for fresh produce and eggs.<br>• Some contract food services to external companies. |
| CVRD Kerry Park Recreation Centre | $6,000/month | • Majority purchased through Sysco and GFS.<br>• Local beers and wines.<br>• Very small % from local grocery stores (e.g. Thrifty Foods, Old Farm Market). |

**The number of private assisted living facilities in Cowichan that provide food for their residents is unknown, however; it is estimated there are over 20 such facilities in the region.*

Meal costs range from $2.50 to $3.50 per meal, depending on the type of institution (the details and full assumptions of these calculations can be found in Appendix B). The total economic contribution for all institutions interviewed is $5.57 million per year. A conservative factor of 0.4 (or 40%) was then applied to that figure, as it is assumed that not 100% of meal ingredients could be procured locally, even if these institutions wanted to. For example, meal ingredients such as citrus, exotic fruits, pasta, rice, grains, coffee, and tea, are not produced in Cowichan (on large, economic scales). Therefore, the food inputs purchased annually by these institutions that could be substituted for Cowichan food inputs is estimated at $2.22 million per year.

## Barriers & Needs for Purchasing of Local Foods by Facilities

There are a variety of reasons facilities are not purchasing more foods from within Cowichan. All facilities cite the higher price points of local foods as the main reason why local produce and processed foods are not purchased more often. Seasonality, consistency of volume, and quality of local foods were also cited as barriers, which is aligned with results from other research studies. For example, in 2014 the Sustainability Ventures report found that institutions tend to want to buy in large quantities and even to have year-round purchasing contracts with fixed pricing as it may be simpler to arrange.[12] The 2013, CGC study found that assisted living food programs may be severely limited by budget.[13] The 2019 FeedBC, BC Government Healthcare Market Development Strategy found barriers to be a lack of year-round supply, inability to meet minimum quality standards, and an inability to supply the product size and package type desired.[14] Additionally, some facilities contract meal production to external food service companies that make decisions of food purchasing as part of a province- or Canada-wide company.

The health and educations facilities noted several requirements that must be met if they were to purchase more local food products. For the private schools and public health care facilities, food (processed or unprocessed) must be delivered directly to the facilities. Private assisted living facilities do not necessarily demand deliveries, but they noted the need to be able to purchase all types of foods (processed and unprocessed) from the same location to save time. The public health care facilities were the only facilities that cited the need for purchased food to be certified (e.g. Canada Good Agricultural Practices (GAP) and Hazard Analysis and Critical Control Point (HACCP) certified) to allow for detailed traceability of products.[15] All facilities stressed the need for the foods to have a high level of food safety. While there are challenges for getting more local food inputs into kitchens and food processing businesses, opportunities exist to increase local food in local facilities. These are outlined in the following section.

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[12] Creating Climate Change Resilience: Enhancing Food Processing in the CVRD. 2014. Sustainability Ventures.

[13] Growing Connections: a handbook for purchasers + farmers in the Cowichan Region. 2013. Cowichan Green Community.

[14] BC Government Health Care Market Development Strategy. 2019. Ference & Company.

[15] The Canada GAP program was developed specifically for operations that produce, handle and broker fruits and vegetables. It is designed to help implement and maintain effective food safety procedures within fresh produce operations. The HACCP certification is an internationally used program with the aims of ensuring food safety for all food producing businesses. It is a systematic and preventative system to help find, correct, and prevent physical, chemical, and biological hazards throughout the food production process.

# 6.0 Opportunities Assessment

The interest is high throughout the food processing sector and within institutions to purchase more Cowichan-grown foods. This section highlights how the challenges and barriers for local food purchasing could be overcome, and the opportunities for increased purchasing of local foods.

There are several criteria needed of local food inputs by both food processing businesses and institutions to enable greater purchasing of local foods. These include:

- Regulations & Certifications
    - Some level of guarantee to purchasers that food has been produced and handled safely (i.e. Canada GAP, HACCP, Island Health Food Premise Permit, FOODSAFE certificate).
- Pricing & Contracts
    - Competitive (wholesale) pricing and ability to provide long-term contracts with consistent quantity and quality of food products.
- Communications
    - Consistent methods of communication about product availabilities, pricing, deliveries, invoicing, and practices of production.
- Distribution
    - Reliable deliveries of products direct to facilities and flexibility of timing of deliveries.

If local food producers and processors can achieve these main criteria, it is more likely institutional purchasers will look to local foods as a viable option.

There are some institutions that may be able to purchase local food more easily than others. For example, private schools and privately-run assisted living facility chefs and food service managers have a fair amount of autonomy as to where and how they purchase foods. The easier it is for these facilities to purchase local foods and at a reasonable price, the more there is a willingness to change purchasing habits. The concept of a "Food Hub", as a centralized location from which to purchase local foods and/or co-ordinate food order deliveries, was discussed during interviews. All interviewees indicated that the model of a Food Hub would facilitate an increase in local food purchasing. Ensuring that food purchasers are aware of where and how to purchase local foods is crucial in increasing local food inputs.

There are specific opportunities that could exist in helping to get more local foods into health care and assisted living facilities. Health care and assisted living facilities have noted the potential mental health benefit that local food could provide to patients and residents. Telling the story and faces behind the production of food items along with the environmental benefits of local foods have been cited as bringing patients and residents a deeper connection to their food.[16] The FeedBC initiative is encouraging more local foods to be purchased by government-supported facilities (including health care facilities). The results of

[16] Nourishing the Future of Food in Health Care, A Pan-Canadian Policy Scan. 2018. Jennifer Reynolds, Japji Anna Bas, Beth Hunter, Cheryl Hsu.

FeedBC projects and associated resources will be important in facilitating the increase of local food purchases.

Opportunities also exist for local governments to support the local food sector. While local governments may not have large purchasing power, the policies they set can have an influence on the general awareness and support for local food businesses. Local governments in Cowichan (e.g. CVRD, Municipality of North Cowichan, Town of Ladysmith, City of Duncan, Town of Lake Cowichan) are supportive of local food procurement. Some Official Community Plans already support local purchasing and procurement policies and the CVRD is considering a regional purchasing policy to support local businesses.[17] The continuation of promoting foods produced and processed in the region by local governments will support the local food sector industry.

## 6.1 Opportunities for Food Products

Several food processing businesses and institutions noted specific products they would be interested in purchasing from Cowichan food businesses. All stakeholders are interested in purchasing a variety of local produce for their chefs to use in meal preparation. Food processing businesses are also interested in specific types of produce and lightly processed produce in very specific ways. For example, dried foods using Enwave dehydration technology or mushrooms with specific nutrient contents. In these cases, the key is to connect local food processors with local food producers to discuss specific product needs and product preparation methods. Many facilities expressed interest in purchasing locally produced dairy products such as cheeses and yogurts, as well as local meats and meat products.[18] However, the high cost of cheese and meat products currently produced in Cowichan prohibits facilities from purchasing these items locally.

The larger government-supported health care facilities in Cowichan are interested in local 'one-step' processed foods. These are vegetables and fruits that have been washed, chopped in various ways, and packaged or frozen. There could be an opportunity for producers and processors to provide local facilities with pre-packaged processed meal inputs. Specific one-on-one discussions between these facilities and producers/processors would be required to ensure product demands are met. A province-wide study conducted as part of the FeedBC initiative identified the top 20 in-demand food products in BC healthcare facilities with the potential to be grown or processed and supplied in BC (Table 4). The Provincial government has produced a guide for producers and processors to help identify opportunities in government supported facilities and how to enter the food supply chain of these markets.[19] This guide is an important resource for local businesses looking to enter the institutional market. As the FeedBC initiative continues, there are likely to be opportunities for local producers and processors to supply their local government-supported health care facilities.

[17] Regional Collaboration Framework, Backgrounder. 2018. Cowichan Valley Regional District.

[18] These products were also cited as in demand in the 2014 *Creating Climate Change Resilience: Enhancing Food Processing in the CVRD* study

[19] Selling B.C. Food to B.C.'s Government-Supported Facilities. 2019. *fs*Strategy Inc.

Table 5. Top 20 In-demand Foods in BC Healthcare Facilities that Could be Produced or Processed in BC.[20]

| | | | |
|---|---|---|---|
| 1 | **Chicken**<br>• Frozen in whole or parts or battered/cooked/breaded. | 11 | **Salmon**<br>• Bulk and portion cut sized. |
| 2 | **Turkey**<br>• Frozen, raw, and cooked. | 12 | **Apple sauce**<br>• Cups, containers, pails. |
| 3 | **Beef**<br>• Ground, cubed, stripped. | 13 | **Coffee** |
| 4 | **Frozen vegetables** | 14 | **Sugar**<br>• Bulk and individual packets. |
| 5 | **Frozen berries** | 15 | **Tea**<br>• Bags. |
| 6 | **Frozen mashed potatoes** | 16 | **Frozen soups** |
| 7 | **Muffins**<br>• Individually wrapped, muffin batter. | 17 | **Ice cream**<br>• Cups and bulk. |
| 8 | **Fresh salads** | 18 | **Yogurt**<br>• Cups and bulk. |
| 9 | **Frozen pre-cooked entrees** | 19 | **Rice**<br>• Various varieties. |
| 10 | **Cheese (slices and bulk)**<br>• Blocked, sliced, shredded, cheddar and mozzarella. | 20 | **Honey**<br>• Various container sizes. |

## 6.2 Specific Product Opportunity Assessment: Diced, Bagged, & Frozen Carrots

Throughout the project's research, the opportunity of supplying 'one-step' (or primary) processing of vegetables to institutions has arisen (Table 4). An example of a one-step product and its end use was examined from the perspective of the buyer and their budget, in order to further understand the economics involved in the process.

The example of diced, bagged, and frozen carrots is used to conduct an exercise documenting the cash flow associated with the production, processing, and sale of this product.

[20] Top 20 Food Opportunities in BC Healthcare. 2018. A FeedBC Resource.

## Background & Rationale

Carrots are grown in Cowichan by many farmers and has been identified as a produce that is "in-demand" from government-supported health care facilities, of which several exist in Cowichan. There are no known facilities currently in Cowichan that produce diced, frozen, bagged carrots. The exact yield of carrots produced in Cowichan is unknown; however, the 2016 Census of Agriculture identified 45 farms growing carrots on a total of 9 hectares (~22 acres).[21]

## Processing, Packaging & Distribution Considerations

Several pieces of equipment are required for processing the carrots into the final product, including:

- A washing/drying station.
- Dicing equipment.
- Packaging/bagging equipment.
- IQF (Individually Quick Frozen) Freezer storage.

The product would then be distributed to the end user. There are two ways in which the product may be delivered, either directly or through a distributor. As the product will be produced close to the location where it will be used, it may be most feasible to direct deliver the product. However, if the end user is a health facility, then the delivery process would be required to be HACCP certified. Deliveries would likely need to be co-ordinated to coincide with other food deliveries. Using an already established distributor is likely the preferred method of delivery for the health care facilities. However, it may be difficult for the product to enter the distributors' system if only a low volume of the product is produced.[22]

## Regulatory Considerations

To facilitate access to larger institutional purchasers, such as hospitals and health care facilities in Cowichan, the product must be federally certified under the GAP and HACCP programs. Other purchasers, such as schools, restaurants, and residential care homes, may not require federal certification, which would reduce the regulatory barrier for processors.

The Canada GAP program was developed specifically for operations that produce, handle, and broker fruits and vegetables. It is designed to help implement and maintain effective food safety procedures within fresh produce operations. The producers growing the carrots would need to be GAP certified.

The HACCP program is used to help find, correct, and prevent physical, chemical, and biological hazards throughout the food production process.[23] The location where the carrots are processed, and the distribution systems must be HACCP certified. The processing location would also likely be regulated by the BC provincial *Food Safety Act* through the Food Premises Regulation, which defines a "food premise" as any place where food intended for public consumption is "sold, offered for sale, supplied, handled, prepared, packaged, displayed, served, processed, stored, transported, or dispensed."[24]

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[21] Vegetables, Carrots. 2016. Statistics Canada.
[22] Selling BC Food to BC's Government-Supported Facilities. 2019. fsSTRATEGY.
[23] HACCP. CFIA Information.
[24] Province of BC. Food Safety Legislation.

## Economic Considerations

A high-level assessment of processing equipment expenses and considerations for volume of raw carrots required are discussed. Table 5 highlights estimated equipment expenses and prices for wholesale raw and processed carrots.

Table 6. Estimated Equipment Expenses & Product Profit Margin.

| **Equipment Expenses**[25] | **Price** |
|---|---|
| Dicing Equipment | $2,000[26] |
| Packaging Line | $5,000[27] |
| IQF Freezer | $5,300[28] |
| **Total** | **$12,300** |
| **Product Profit Margin** | **Price ($)** |
| Wholesale Carrots | $1.00/lb[29] |
| Wholesale Frozen, Diced Carrots | $1.23/lb[30] |
| **Difference** | **$0.23/lb** |

Based on these expenses and the profit margin, approximately 53,500 lbs of unprocessed carrots would be required to pay back the processing expenses. Marketable yields per acre for carrots vary depending on several factors, including the cultivar and density of plantings and biophysical characteristics of the soil. Estimates for annual carrot yields are between approximately 34,000lbs/acre[31] and 48,000lbs/acre.[32] By these rough estimates, two acres planted in carrots could cover the cost of the processing equipment within a year.

To bring the frozen, diced carrots to market, other expenses such as a physical location, a wash/drying station, building insurance, HACCP certification, and distribution costs (typically 20-30% of product price) would be required for a more detailed analysis. However, these costs could be shared with other food processing activities. For example, the same physical location could incorporate other vegetable processing activities using the same equipment (at different times throughout the season) and could share distribution costs, which would reduce overall capital and operating costs of production.

[25] A more detailed investigation into the exact sizes and models of equipment is required. A detailed business plan for a product is outside the scope of this project.
[26] Fruit & Vegetable Processing Machines: Vegetable Cutter. Alibaba.com
[27] Multi-Function Packaging Machines. Alibaba.com
[28] IGF Freezer. Alibaba.com
[29] Annual Summary of Daily Wholesale to Retail Market Prices. 2019. Agriculture and Agrifood Canada.
[30] Islands West sells frozen, diced carrots for $32.50/12kg case (free delivery over orders of $100). 2019. Personal Communication.
[31] Carrots. 2019. Agricultural Marketing Resource Centre.
[32] Statistics, Horticultural Crops, Carrots. 2017. Ontario Ministry of Agriculture, Food and Rural Affair

## Strengths, Weaknesses, Opportunities, Threats Analysis (SWOT)

A SWOT analysis for getting frozen, diced carrots to institutional markets is detailed below. The SWOT is also applicable to other fruits and vegetables grown in Cowichan such as garlic, onions, berries, etc., and the primary processing of those products. The SWOT is useful in understanding the strengths and opportunities that can be built upon, as well as the weaknesses and threats that can be addressed to increase the market feasibility of the products. A purchasing contract with Cowichan facilities, outlining a certain volume of the product they would commit to purchasing annually, would provide market security for a processing business to undertake this endeavour.

Table 7. SWOT for Selling Primary Processed Goods to Institutional Markets.

| Strengths | Weaknesses | Opportunities | Threats |
|---|---|---|---|
| Strong interest in local food products has been identified as being locally in-demand. | Likely need to source raw produce from multiple farms to reach critical volume required. | Grocery and hospitality markets within Cowichan. | Co-ordination of sales, storage, and shipping with purchasers. |
| Productive agricultural land and several crops with potential for primary processing. | Location for processing and equipment needed. | Grocery, hospitality, and government-supported facility markets beyond Cowichan. | Sufficient operating capital and cash flow management; potentially requires a co-ordinator. |
| Could increase land in production and/or co-ordinate growers to increase production if stable markets exist. | Delivery logistics need to be determined. | Partnerships between producers, food processors, and industry associations. | High cost of land and capital challenging for new food businesses. |
| Processing equipment could be used to produce other value-added products. | Marketing skills and resources. | Businesses involved in product production to become ‘anchor tenant’ of a potential Food Hub. | Obtaining and maintaining federal GAP and HACCP regulations with all involved parties. |

The demand for local food and products, coupled with the productive agricultural land in Cowichan and the opportunity to substitute Cowichan grown foods with non-Cowichan grown foods in institutional markets presents an opportunity for producers and processors. However, the SWOT analysis highlights the potential challenges a successful primary processing endeavour would have to overcome to access the institutional markets. A physical location, capital to purchase equipment, securing distribution channels, and obtaining federal food safety certifications may be the most challenging pieces. Partnering with existing initiatives (such as the Cowichan Green Community Food Hub Initiative) or forming partnerships with several producers/processors could reduce capital and operating costs. Deciding on which markets to target for product sales will determine what levels of food safety certification are required. Forming relationships with institutions to secure markets for the product before production begins can help to ensure market security. Overall, it is likely that strong partnerships are required to bring locally produced primary products to local markets.

The opportunity assessment framework outlined in this section can be used to assess other potential primary processing opportunities for Cowichan grown products. Diced, bagged, and frozen carrots are one example of the many products that could be produced locally and sold to local Cowichan institutions and other markets (such as restaurants and retail grocery stores). The framework presented here is a high-level assessment from the perspective of the buyer and their budget, documenting the cash flow associated with the production, processing, and sale of this product. A more detailed business plan would be required for any primary processed product to ensure market viability for the endeavour.

# 7.0 Food Processing Infrastructure, Equipment Supply & Demand

For food processing businesses to expand and supply new markets, additional infrastructure and equipment is needed. This section provides an inventory of existing food processing infrastructure and equipment in Cowichan. The demand for certain infrastructure and equipment from food processors consulted through this study and previous studies are summarized.

## 7.1 Existing Food Processing Equipment & Infrastructure

To help food processing businesses be successful and grow, there are several types of food processing equipment and infrastructure needed. This includes commercial kitchens, packaging and labelling facilities, food safety laboratories, storage facilities, and aggregation and distribution facilities. Research findings indicate there is very little food processing infrastructure available to small-scale food processors in Cowichan. Some small- and medium-scale businesses own or rent their own equipment, and do not have the capacity to share equipment. No processing facilities with packaging and labelling equipment exist in Cowichan. There are also no analytical laboratories for food testing in Cowichan. The nearest laboratories offering food safety testing are in Sidney. Aggregation and distribution methods in the region include wholesale distribution through channels such as Sysco, GFS, Islands West, Cold Star, and others; it is difficult for smaller producers and processors to access these broadline distributors. The processed foods that are produced by small-and medium-scale processors are typically directly marketed to local customers and retailers or sold at farmers' markets and are distributed by processors in their own vehicles.

There are several commercial kitchens available for rent in Cowichan that may be suitable for small-scale food processing businesses. There is a small commercial kitchen in Cobble Hill run by the operators of Cobble Hill Farmers Institute[33]. In Duncan, the Heritage Hall Commercial Kitchen is rented out by the CVRD in the Cowichan Community Centre to non-profit and non-commercial users, often to catering businesses.[34]

[33] Hall Overview. Cobble Hill Farmers' Institute: https://www.cobblehillfair.ca/hall-rental/hall-overview. The hall and kitchen are rented mainly for private functions ($25/hour or $300/day). The kitchen is 500 sq. ft. and has a commercial propane stove with two ovens six burners and a grill, commercial electric fan, ovens/burners, commercial stainless steel dishwasher, commercial stainless fridge, stainless steel countertops with double stainless steel sinks along with one hand washing sink.

[34] Facility Rental Rates. CVRD: https://www.cvrd.bc.ca/1932/Facility-Rental-Rates. Rental costs are $25/hr or $178/day for non-profit users and $33/hr or $233/day for non-commercial organizations.

In addition to these facilities, Island Health lists a number of certified commercial kitchens that serve multiple operators, such as churches, legions, and community centre kitchens. However, it is unknown how many of these facilities are accessible to new food processors. In general, these types of kitchens are quite small and not usually equipped for processing or long-term storage of larger quantities of food.

A commercial kitchen that may be more suited to small-scale food processing activities is "The Station", in Duncan, operated by the CGC. The commercial kitchen is available to smaller-scale processors and urban farmers and gardeners who only require smaller equipment and who are producing items for farmers' markets, smaller retailers, and local stores.[35] Since 2015, 43 different processors, farmers, organizations, and businesses have rented this kitchen using the existing equipment. The food processing activities that have occurred in the kitchen include: dry processing, wet processing, fermenting, meat processing, dehydrating, baking, packaging (vacuum sealer for rent), catering, cooking classes, preserving workshops, frozen meal production, and labeling, etc. This facility is suitable for small-scale food processors, however due to space constraints it is unsuitable for medium-scale food businesses and/or food businesses looking to grow.

## Potential Food Hub & Related Initiative

The CGC is spearheading an initiative to develop a Food Hub for Cowichan. This Food Hub is envisioned to be a larger space than "The Station", to allow for more substantial food processing activities to occur within a shared facility. The Food Hub will include a commercial kitchen with processing equipment, temperature-controlled storage, production areas, a food-testing laboratory, an office, and training spaces. Along with providing food processing infrastructure, the Food Hub will assist food businesses in accessing markets for their products (e.g. grocery stores) and provide business development and training services (e.g. FOODSAFE and MarketSafe courses).

The CGC is also partnered with the CVCM. The CVCM is a non-profit co-operative that runs an online website where consumers can order locally produced foods. The CVCM is operated out of a facility on Hope Farm to aggregate, pack, and then distribute food to consumers.

Another initiative of the CGC is the Cowichan Food Recovery Project. This project reclaims unwanted food and redirects it into a variety of other, more sustainable, streams including re-distribution, processing, animal feed, and compost. Part of this project is the refresh Marketplace, which is a storefront in Duncan that sells reclaimed foods and value-added products.

[35] Commercial Kitchen Rental. Cowichan Green Community: https://cowichangreencommunity.org/the-station/kitchen-rental/

## 7.2 Demand for Equipment & Infrastructure

The demand by food processing businesses for shared equipment and infrastructure was assessed during the stakeholder outreach as part of this study. Survey respondents were asked if they would use a shared commercial kitchen and what equipment and services would be most useful in the shared space (Table 5). Results from previous surveys completed with agricultural and food sector businesses in the region are also used to assess the demand for shared infrastructure.

Table 8. Demand for Shared Infrastructure & Equipment.

(Source: CGC Hope Farm Survey and stakeholder outreach during this study). Business names are removed for confidentiality purposes.

| Business Name | Commercial Kitchen Rental & Equipment Usage (per month) | Equipment Needs |
|---|---|---|
| A | 2 times | Dehydrator<br>Canner |
| B | 2 times | Vacuum Sealer<br>Tables<br>Freezer Storage |
| C | 1-2 times | Dehydration<br>Pasteurization |
| D | 6-8 times | Packaging Walk-in cooler<br>Meat slicer (Robo-coupe),<br>Oven & Stove<br>Commercial salad spinner<br>Large stand mixer<br>Pressure canner |
| E | 4 times | Juice & Vinegar Processing<br>Dry Storage<br>Slicing<br>Dehydrator<br>Packaging & Bottling<br>Labelling |
| F | 3-4 times during summer months | Commercial/Flash Freezer<br>Canner |
| G | Not interested | Packaging Line/machine with automatic weighing |
| H | Interested | Dry processing<br>Seasoning<br>Packaging |

A study completed in 2018 also found that there is interest from the agricultural community in Cowichan for sharing equipment. [36] This study found that a fruit press was the most desired food processing equipment followed by a dehydrator, poultry processing equipment, vacuum sealer, apple grinder,

[36] Cowichan Region Agricultural Equipment Library. 2018. Cowichan Green Community, Foster Richardson.

pressure canner, commercial kitchen, sausage filler, and others. The study also found there is some demand for cold storage facilities. From the survey, 11% of respondents said they would 'absolutely' use shared cold storage, while 40% said they would 'possibly' use it.

Throughout the various surveys completed in Cowichan, there are common services that continue to be demanded by agricultural and food sector businesses. These services include; food testing (for safety/allergens), nutritional labelling, equipment repair (e.g. scale validation), business development services (e.g. marketing, how to grow a business, navigating regulation system, product development, etc.), skilled labour pool/network, and a database of existing agricultural services available.

# 8.0 Shared Infrastructure Governance & Operational Models

If equipment and infrastructure is to be shared, an organization is needed to oversee the logistics and operations of sharing the infrastructure (e.g. financial management, insurance & liability, administrative tasks, etc.). The governance models under consideration for sharing infrastructure are a non-profit organization, a for-profit corporation, a social enterprise, or a co-operative. Each of these governance options is defined and their strengths, weaknesses, opportunities, and threats (SWOT) are outlined.

## Non-Profit Organization

A non-profit organization is an association, club, or society that is operated exclusively for social welfare, civic improvement, pleasure, recreation, or any other purpose except profit.[37] Profits that are generated through activities cannot be distributed to members, directors, stockholders, or managers and must be reinvested in the objectives of the organization. When a non-profit is dissolved, or goes out of business, its remaining assets must be given to another non-profit and not shared amongst the members, stockholders, directors, or managers. Non-profit organizations can be incorporated (i.e. registered society) or unincorporated in Canada. Incorporated non-profit societies are incorporated through the Canada Revenue Agency (CRA) and must comply with the *BC Societies Act.*[38] Incorporating a non-profit gives the organization legal status and allows it to enter into contracts, buy land, borrow money, and have bank accounts in its own name. The liability of the members is limited, as members are not personally liable for any debts or liabilities incurred by the organization. Continuity is also maintained for the organization if the membership changes and the organization can still own property. Incorporated non-profits also have a higher chance of receiving government grants as the organization appears to have more stability. Membership in a non-profit cannot be compulsory or coerced and cannot have a mandatory fee for joining, however it can have a fee for service.

In order to comply with the *BC Societies Act*, the non-profit organization must have a recognized structure that consists of a Board of Directors (minimum 5 people in BC), a management hierarchy, clear bylaws and a constitution, and regular general meetings of the membership (must hold an Annual General Meeting at least once every 15 months). Incorporated non-profits must also have a clearly defined mission and

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[37] Charities and giving glossary. 2018. Government of Canada.
[38] Societies Act, 2015. Retrieved from: http://www.bclaws.ca/civix/document/id/complete/statreg/15018_01#section1

purpose. The mission must benefit the greater good of the community, society, or the world and cannot use its funds for anything other than the mission for which it was formed. A non-profit organization can also apply to the CRA to become a registered charity. A registered charity must receive approval from the CRA as meeting the requirements for registration as a charity and is issued a charitable registration number. It can be designated as a charitable organization, a public foundation, or a private foundation. A registered charity is exempt from paying income tax and can issue official donation receipts for gifts it receives.

## For-Profit Corporation

For-profit businesses are organizations that are created for the financial benefit of its owners and/or shareholders. Profit is the ultimate goal and the business pays taxes on that profit. For-profit businesses can take the form of sole proprietorships, corporations, or partnerships. Sole proprietorships are owned by one person and income is reported as personal income on taxes. In a corporation, no individual person is responsible or liable for debts. If any members of the business leave or are replaced, it does not affect the business as a whole and operations can continue.[39] Partnerships occur when two or more individuals join together to start a business venture, which can take the form of a corporation if desired. When a for-profit business goes out of business or is dissolved, its assets can be liquidated, and the proceeds distributed to the owners or shareholders. Funding support is available for new businesses in the form of loans and grants, but a well-developed business plan is generally a necessity for potential funders. The One Stop Business Registry[40] and Community Futures[41] are excellent resources for business start-ups.

## Social Enterprise

Social enterprises are revenue generating businesses that can be operated by a non-profit organization or a for-profit business. There is no certification or legal avenue to enable a venture to be officially deemed a social enterprise, but the goal of all social enterprises are twofold: (1) to achieve social, cultural, community economic and/or environmental outcomes; and (2) to earn revenue.[42] Social enterprises need to be selling a good or service into the marketplace, but its surplus revenues need to be in pursuit of social and/or environmental goals. The surpluses also need to be reinvested for social objectives into the business or the community and cannot be driven by the need to deliver profit to the shareholders and owners.

Some examples of social enterprises are as follows:

- Farmers' markets – uses a business model to create community value.
- Providing employment opportunities to persons with disabilities or barriers to employment.
- Theatres and art galleries – these are often under a non-profit model.
- Thrift stores.
- Organizations that provide venue rental space in an existing building.

[39] The Legal Requirements to Starting a Business. 2019. Small Business BC.
[40] OneStop Business Registry. nd. Government of BC.
[41] Community Futures British Columbia.
[42] What is a social enterprise? 2020. BC Centre for Social Enterprise.

## Co-operative

Co-operatives are organizations that are owned and democratically controlled by the people who use and benefit from the services. Co-operatives are founded on the idea that people, no matter their economic class or educational level, know what is best for themselves and work together to meet common needs. Examples of co-operatives include: businesses offering members products or services (e.g. Otter Co-op and credit unions); social enterprises providing such necessities as housing or employment (e.g. the Co-operative Housing Federation of BC); businesses owned and operated by their workers; and public services offering members health or child-care.

The structure of co-operatives can be either for-profit or non-profit, however most are usually similar to a non-profit organization in that members elect a Board of Directors and decisions are made by voting power of the members. For members choosing to leave the co-operative, the membership you pay is refundable and may include interest. Co-operative associations must abide by the Co-operative Association Act and have the ability to incorporate as a co-operative association, similar to an incorporated non-profit organization.

Table 9. Shared Infrastructure Options SWOT Matrix

| Governance Type | Management Structure | Strengths | Weaknesses | Opportunities | Threats |
|---|---|---|---|---|---|
| Non-profit Society | • Board of Directors<br>• Executive Director<br>• Staff | • Model is well set-up and easily repeatable.<br>• Members are not liable for any debts and liabilities incurred by the organization.<br>• Set-up costs for the organization are minimal. | • Need to develop bylaws and constitution and hold regular member meetings.<br>• Need to develop a governance structure with at least 5 committed volunteer board members. | • Can apply for grant funding.<br>• If approved as a registered charity, can provide tax receipts for donations.<br>• Can include a social enterprise as a component of the organization. | • Organization is tied to available funding and funders. |
| For-Profit Corporation | • Owners/Investors<br>• Board of Directors<br>• CEO<br>• Staff | • Not dependent on funding availability and grant writing.<br>• Start-up is very simple – business name and number. | • Must pay taxes on profits earned.<br>• Owners are personally liable for business if a sole proprietorship.<br>• Control over business is often in the hands of one or two individuals. | • Can include a social enterprise as a component of the organization. | • Cannot access most grant programs. |
| Social Enterprise | • Executive Director or CEO<br>• Owners/Investors<br>• Board of Directors<br>• Staff | • Sell a good or service into the marketplace, but the surplus revenues are in pursuit of social and/or environmental goals. | • Similar weaknesses to non-profit and/or for-profit corporations depending on the avenue chosen. | • Can be a non-profit or for-profit corporation. | • Similar threats to non-profit and/or for-profit corporations depending on the avenue chosen. |
| Co-operative | • Board of Directors<br>• Executive Director<br>• Staff | • Membership is refundable.<br>• Multiple organizations can unite towards a common goal.<br>• Members have full control over how the co-operative is governed and functions. | • Need to develop a governance structure with committed members. | • Flexibility of structure – can incorporate as a non-profit if desired or be a for-profit. | • Require mission, purposes, bylaws, and constitution.<br>• If a for-profit, cannot access most grant programs. |

## 8.1 Recommended Community Champion

A local champion will need to step forward to govern and lead a formalized service to connect local food producers to processors and institutional buyers. This local champion could be a farmer (or group of farmers), a processor (or group of processors), or a non-governmental organization. Based on engagement results and outreach conducted to-date, the likelihood of a farmer or processor representative to step forward to take on a leadership role is extremely low. This is due to a lack of capacity, prior commitments, and more pressing priorities. CGC represents an existing local resource that may be in the position to take on a leadership role. As mentioned, CGC is spearheading a Food Hub initiative proposal for the region and is envisioned to be the organization to oversee the Food Hub's future operations. Based on the leadership CGC has shown to carry the Food Hub initiative forward, it is recommended that the CGC continue to be supported in leading the Food Hub initiative under a non-profit governance model.

## 8.2 Operational Model Success Factors & Examples

Equipment and infrastructure sharing initiatives can take many forms. Examples of local food initiatives or enterprises in BC include food hubs, commercial/commissary kitchens, aggregation initiatives, distribution services, and others.[43] Operational models for sharing infrastructure can include one or several of the following activities:

- Aggregating and distributing raw food products on-farm or off-farm in a centralized warehouse.
- Aggregation of raw product then transformation of product by processors in a centralized facility.
- Product processing and development in a centralized facility.
- Other activities such as marketing and distribution.

In the context of Cowichan, the Food Hub initiative spearheaded by the CGC aims to include activities such as raw product aggregation and a commercial kitchen for food processing activities.

In recent years there has been increasing research into the concept of shared infrastructure and equipment, within BC and across North America. Several success factors have been identified by researchers in the province for aggregation and infrastructure sharing initiatives and are highlighted in Table 9.

[43] Strategic Analysis of Aggregation Initiative in BC. 2019. Prepared by Greenchain Consulting in association with Urban Food Strategies and Sustainability Ventures. Prepared for BC Ministry of Agriculture.

Table 10 Success Factors for Aggregation & Infrastructure Sharing Initiatives.
(Source: Greenchain Consulting, Urban Food Strategies and Sustainability Ventures).[44]

| Success Factors | Description |
|---|---|
| Form key partnerships. | • Work with and meet government regulations to help access funding.<br>• Work with industry partners and organizations to reduce rent and equipment costs.<br>• Establish the right governance model to collaborate with other food producers and processors. |
| Establish key resources. | • Gain access to affordable land, buildings, vehicles and other equipment. |
| Attract and maintain customers. | • Create an effective business development strategy by identifying target markets and get access to markets by making the service easy to use.<br>• Establish competitive and compatible services and an account management system. |
| Establish the right mix of customers. | • Cultivate a variety of customers and market channels, including high volume customers, as a high priority (e.g. institutions, retailers). |
| Find a clear champion and strong manager. | • Someone who is passionate, experienced, and knowledgeable about food production and food processing, food service and retail, as well as connected and respected in the region. |
| Cultivate highly engaged food producers and processors. | • Producers and processors who are wholesale ready and potentially certified (GAP, HACCP).<br>• Producers and processors who have a good understanding and are committed to food aggregation and collaboration.<br>• Producers and processors who provide a wide variety of products. |
| Set a path to profitability. | • Strong focus on operational efficiencies and reaching a financial breakeven within 3 years.<br>• Know what percentage of surpluses to reinvest in the business (common for this to be 20-25%). |
| Secure the right level of funding. | • Raise enough money to pay for all the pre-launch planning costs, the start-up equipment, and be able to cover projected losses in the first few years of the operation. |

Another strategy being used by some BC food hub and aggregation initiatives is to have one or several anchor tenants or cornerstone operators/service users in the food hub to increase the chances of success. The anchor tenant or cornerstone operator would be a producer or processor that has a large volume of product that uses the hub's services and has their markets already in place. This anchor tenant pays rent to use the food hub; providing a stable source of income for the hub initiative and further, their use of the facility and distribution infrastructure facilitates the cost-efficient use by others. With a stable source of

[44] Eight Key Success Factors for BC Food Aggregation Initiatives. Prepared by Greenchain Consulting, in association with Urban Food Strategies and Sustainability Ventures. Prepared for BC Ministry of Agriculture.

income in place, the food hub can offer other services (such as shared equipment rentals) to smaller producers/processors.

There are several examples of food hubs and infrastructure sharing initiatives currently active in BC. Most of the initiatives are in their early stages of development and operations; however, it is useful to understand the various types of operational models that are being used in BC. Two examples in BC are the Commissary Connect in Vancouver and the Port Alberni Full-Scale Food Processing and Innovation Hub (currently in the start-up stage).

The Commissary Connect model provides food processing businesses with access to the centre and equipment that meet their specific needs through specialized renting agreements (e.g. 24/7 flexible access to specific equipment, kitchen space, and office space and provides business advisory and development services). The centre is HACCP certified and the provincial government provided initial funding to help get the centre operational. Currently, the centre is developing a supply chain module with the aim to use technology to track purchasing patterns and trends in ways that will identify opportunities to streamline procurement, logistics, and financial transactions. The first phase of the supply chain module is focused on connecting small food processors with BC farmers and primary producers.[45]

The Port Alberni Full-Scale Food Processing and Innovation Hub has recently received provincial funding to begin construction. The Food Hub will be operated by the Port Alberni Port Authority and will contain specialized food processing equipment, technology, and testing for local businesses to use. As is understood at this stage (like all start-ups, changes are made to the plan) there are three seafood companies that are considered anchors to this project. Two are shellfish and one is kelp. Seafood, as a whole, is a cornerstone to the overall hub operation and facility. It is the primary economic driver and component to the hub. Though separated distinctly because of the health, logistical, and regulatory needs, there is also a terrestrial food (primarily aggregation and primary processing) goods component to this model. Essentially seafood, with its existing and substantive market, co-exists with non seafood and acts as a catalyst, reducing costs for terrestrial users and sharing the facility but not equipment. Together, they can grow the collective brand and connect within the community and externally more effectively.

The Cowichan Food Hub initiative, if established, could employ this idea of an anchor tenant. For example, the CVCM could use the Food Hub infrastructure and equipment for aggregating and then distributing their food orders to customers. The increase in physical space and supporting infrastructure provided by the Food Hub may allow for the CVCM to expand to wholesale ordering services for local institutions (e.g. educational or health care facilities). Having an anchor tenant, such as an already established business looking to expand, or existing food initiative (such as the Command/or reFRESH Cowichan Marketplace) in the region, could provide the Food Hub with a stable rental income which can then help with providing additional services and equipment to other food businesses.

[45] Commissary Connect, Supply Chain Module: https://commissaryconnect.com/supply-chain-module/

# 9.0 Partnership Opportunities

Strong partnerships are key to successfully linking local products to local institutions. Partnerships across all actors, such as producers, consumers, food businesses, institutions, restaurants, community organizations, industry organizations, and governments, are necessary. Within Cowichan, partnerships currently exist amongst many of these groups and take various forms. For example, the CGC has partnered on various programs linking producers with consumers (e.g. CVCM) and hosts many educational events and workshops for producers and consumers. Often partnerships between producers and food processing businesses and institutions develop organically. For example, some institutions and food processors consulted for this study already have partnerships with local producers to supply certain products. These partnerships arose from an institutional staff member knowing a local producer in the area; from which they started an informal agreement for the supply of that product from the producer directly. However, during the discussions with producers, food processors, and institutions throughout this project's stakeholder outreach, a consistently identified gap was the desire to be connected on a larger scale to sources of locally produced and processed foods. Many food processors and institutions did not know who to contact or how to find the locally produced foods they needed. This presents an opportunity for Cowichan organizations, industry groups, and/or governments to help fill this gap in connecting local producers with processors and institutions.

Several examples of initiatives and programs connecting producers to larger-scale buyers exist within BC. In previous years, events such as "Meet your Maker" have been hosted in Cowichan by food system organizations (FarmFolk CityFolk's Island Chef's Collaborative, funded by VanCity) to host a session for producers, processors, chefs, wholesalers, retailers, and others to connect with local restaurant chefs.[46] In 2013, the CGC produced a handbook for farmers and purchasers to use to help facilitate the steps of a local food system and how connections can be made.[47] Continuing to host events and workshops, promoting existing educational materials and supporting existing Cowichan organizations are opportunities to help connect local producers, processors, and purchasers to increase Cowichan grown foods in local institutions.

An opportunity also exists for local organizations, industry groups, and governments to reach out to Cowichan Tribes. Cowichan Tribes currently has an Elders meal program and the Aluxut traditional foods program. Currently, the program purchases some local foods from grocery stores for their meal programs but are interested in connecting further with Cowichan producers. It has been difficult for the Aluxut traditional foods program to process foods using traditional methods, due to challenges around food safety regulations. An opportunity exists to initiate discussions with Cowichan Tribes to help overcome barriers to traditional food processing and to integrate locally produced and harvested foods into the meal programs.

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[46] Meat your maker on Vancouver Island. 2013. Cowichan Valley Voice.
[47] Growing Connections: a handbook for purchasers + farmers in the Cowichan Region. (2013). Cowichan Green Community.

# 10.0 Recommendations & Conclusions

The research highlights three key themes to help support and increase local food in local institutions. The three themes are:

1. Facilitate connection between producers, food processors, and purchasers.
2. Support the development of local food businesses.
3. Continue to investigate shared infrastructure and equipment options.

Several recommended actions are identified under each theme, and lead and supporting organizations are suggested for each action (Table 10).

Table 11. Recommended Actions.

| Theme 1: Facilitate connections between producers, food processors, and purchasers. | |
|---|---|
| Recommended Actions | Lead & Supporting Actors |
| **1.1**<br>Host in-person workshops for producers, food processors, and purchasers to connect.<br>• Workshops can be specific to different types of purchasers (e.g. health care facilities, schools, restaurants, retailers). | Lead:<br>• SSFPA<br>• Economic Development Cowichan<br>• CGC<br><br>Supporting:<br>• AGRI |
| **1.2**<br>Learn from the FeedBC initiative and associated projects and pilot programs and apply lessons learned to the Cowichan context.<br>• Connect with AGRI to host an event.<br>• Promote FeedBC resources on becoming wholesaler ready and how to access existing distribution channels. | Lead:<br>• AGRI<br><br>Supporting:<br>• Economic Development Cowichan<br>• SSFPA |
| **1.3**<br>Continue discussions with Island Health facilities for procuring local food products.<br>• Start a pilot initiative for getting local products into health care facilities. | Lead:<br>• AGRI<br><br>Supporting:<br>• SSFPA<br>• Island Health |
| **1.4**<br>Investigate the possibility of CVRD facilities procuring more local food products.<br>• Determine what food product may be best substituted from a local source. | Lead:<br>• Economic Development Cowichan |

*Continued Next Page*

*Table 12. Continued 1.*

| Theme 2: Support the development of local food businesses. | |
|---|---|
| Recommended Actions | Lead & Supporting Actors |
| 2.1<br>Offer additional entrepreneurial training programs for business start-ups and growth.<br>• For example courses by the SSFPA including: the Agri-food Business Planning Program, Recipe for Success, and Introduction to Food Safety. | Lead:<br>• Economic Development Cowichan<br>• SSFPA<br><br>Supporting:<br>• CGC |
| 2.2<br>Facilitate information sharing and training on federal and provincial food safety certifications.<br>• Highlight the benefits and requirements for the GAP and HACCP programs.<br>• Connect with AGRI on existing workshops offered. | Lead:<br>• Economic Development Cowichan<br>• SSFPA<br>• AGRI<br><br>Supporting:<br>• CGC<br>• CVCM suppliers |
| 2.3<br>Connect processors with research and development resources to improve products.<br>• Promote results from the Provincial Value Chain Co-ordination Study.<br>• Monitor funding availability for product development. | Lead<br>• AGRI<br><br>Supporting:<br>• CGC<br>• SSFPA<br>• Economic Development Cowichan |
| 2.4<br>Connect processors with established branding and marketing initiatives.<br>• For example, the Island Good brand<br>• Inquire with Island Good about wholesale marketing options. | Lead<br>• SSFPA<br>• Island Good<br><br>Supporting:<br>• Economic Development Cowichan |

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*Table 13. Continued 2.*

| Theme 3: Continue to investigate shared infrastructure and equipment options. | |
|---|---|
| Recommended Actions | Lead & Supporting Actors |
| 3.1<br>Continue to leverage the CGC's leadership role in spearheading the Cowichan Food Hub Initiative.<br>• Support and recognize CGC as a catalyst in this initiative.<br>• Promote the inclusion of success factors in the Hub operational model.<br>• Help investigate a possible anchor tenant opportunity. | Lead:<br>• CGC<br>Supporting:<br>• SSFPA<br>• Economic Development Cowichan |
| 3.2<br>Conduct a detailed market feasibility study for a specific primary processed product(s), including considerations for equipment sharing.<br>• Determine what product(s) can be produced on an economically viable scale using Cowichan grown produce. | Lead:<br>• Economic Development Cowichan<br>Supporting:<br>• SSFPA<br>• CGC |

## Conclusion

There is strong desire by Cowichan food processors and health and educational institutional facilities to increase local food inputs. However, the challenges and barriers to purchasing local foods have limited the current volumes of local foods used by food processors and health and educational institutional facilities. This study highlights these challenges and barriers of local food purchasing as identified in other research throughout the local food sector. The research notes several opportunities and pathways to facilitate Cowichan food producers and processors in increasing sales to local institutional buyers. The recommendations identified in this report are aimed at overcoming the challenges and advancing opportunities, with an emphasis on increasing communication channels and fostering partnerships within the local food sector.

# Appendix A – Stakeholder Engagement Details

### Primary Sources of Data

| | Number of Interviews |
|---|---|
| Food Processors | 5 (1 Survey Response) |
| Private Schools | 3 |
| Health Care Facilities | 5 |
| CVRD Facilities | 2 |
| Cowichan Tribes Kitchen Manager | 1 |
| Cowichan Green Community Meal Program | 1 |
| Total | 18 |

### Secondary Sources of Data

- Hope Farm Survey (conducted by the Cowichan Green Community).
  - 8 responses from farms and food processors.
- Cowichan Region Agricultural Equipment Library Survey and Report (2018).
- FeedBC – Top 20 Food Opportunities in BC Healthcare (2019).

# Appendix B – Estimate of Economic Contributions

This appendix contains a high-level estimate of the potential economic contribution of the institutions interviewed during this project.

The total economic contribution for all institutions interviewed is $5,567,800 x 0.4 = **$2.22 million/year**.

A conservative factor of 0.4 (or 40%) was applied to the total economic contributions because it is assumed that not 100% of meal ingredients could be procured locally, even if these institutions wanted to. For example, meal ingredients like citrus, exotic fruits, pasta, rice, grains, coffee, and tea, are not produced in Cowichan (on large, economic scales) and are not likely to be sourced locally.

| Private Schools | | |
|---|---|---|
| | Volume of Foods | Estimated Potential Economic Contribution to CVRD |
| Private School A | Total food budget is $120,000/month<br>• Less per month during the summer months. | • School Months: September – June<br>• 120,000 x 10 = $1.2 million |
| Private School B | • 2000 meals/day during the school year.<br>• Serve meals for camps during the summer but a much lower number. | • School Months: September – June<br>• 2000 meals x 303 days = 606,000 meals<br>• 606,000 meals x $3.25 = $1.97 million |
| Private School C | 700 meals/day during the week<br>• 150-300/day on the weekend.<br>• Less meals during the summer, but some of the programs occur at the school.<br>• Around $4000/month for fresh produce. | • School Months: September – June<br>• 700 meals x 207 weekdays = 144,900 meals<br>• 225 meals x 96 weekend days = 21,600 meals<br>• 166,500 meals x $3.50 = $541,000 |
| | | • **Total economic contribution:** 3.711 million/school year |

**Assumptions:**

- Assuming $3.25 is spent on food costs per meal. This is slightly higher than public schools per meal food costs as these are private schools whose chefs mentioned they have a larger food budget to work with.
- Summer months (July/august) some schools have summer camps/day programming where meals are served. However, the numbers of meals were not disclosed by the School chefs during interviews. In this calculation we are assuming 0 meals are served during the summer. Summer months could be a potential growth market once meal numbers are confirmed.

| Public Health Care/Assisted Living Facilities | | |
|---|---|---|
| | Volume of Foods | Annually |
| Vancouver Island Health Authority | • 1050 meals/day are prepared at the Cowichan Regional Hospital for the Cowichan Hospital, Cairnsmore Lodge, and Cowichan Lodge facilities.<br>• 300 meals/day are prepared and served at the Chemainus Health Care Facility. | • 1350 meals x 365 days = 492,750 meals/year<br>• 492,750 meals x $3 = 1.478 million/year |
| | | • **Total economic contribution:** 1.478 million/year |

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<table>
<tr><th colspan="3">Public Health Care/Assisted Living Facilities - Continued</th></tr>
<tr><td colspan="3">Assumptions:<ul><li>Budget for food for each meal is $3.00<ul><li>Data source: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/feedbc/selling_bc_food_to_bcs_government-supported_facilities_-_feed_bc_resource.pdf</li><li>“In resident (PSIs or RCFs) and in-patient (hospitals) foodservice, the foodservice operator is provided a specific budget per meal day. Most of the budget will be used to cover overhead costs and labour. If that budget is $9.00 per day, the foodservice operator may have less than $3.00 per meal, on average, to spend on food (typically including a drink, center of plate protein, gravy, vegetable, starch, dessert).”</li></ul></li></ul></td></tr>
<tr><th colspan="3">Private Assisted Living Facilities</th></tr>
<tr><th></th><th>Volume of Foods</th><th>Annually</th></tr>
<tr><td>Facility A</td><td><ul><li>Approximately 7 residents, provides all 3 meals/day.</li></ul></td><td><ul><li>7,665 meals x $2.8 = 21,462</li></ul></td></tr>
<tr><td>Facility B</td><td><ul><li>Approximately 9 residents, 3 meals and snacks a day/resident.</li></ul></td><td><ul><li>9,855 meals x $2.8 = 27,594</li></ul></td></tr>
<tr><td>Facility C</td><td><ul><li>15-18 residents.</li><li>3 meals/day and snacks.</li></ul></td><td><ul><li>18,615 meals x $2.8 = 52,122</li></ul></td></tr>
<tr><td>Facility D</td><td><ul><li>56 residents, serve 3 meals/day and snacks.</li></ul></td><td><ul><li>61,320 meals x $2.8 = 171,696</li></ul></td></tr>
<tr><td></td><td></td><td><ul><li>Total economic contribution: $272, 800/year</li></ul></td></tr>
<tr><td colspan="3">Assumptions:<ul><li>Budget for food for each meal is $2.80<ul><li>Data source: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/feedbc/selling_bc_food_to_bcs_government-supported_facilities_-_feed_bc_resource.pdf</li><li>“fsSTRATEGY estimates the average cost per meal day for retirement homes in Western Canada is approximately $23.60, of which only $8.60 is designated to food purchases.”</li></ul></li></ul></td></tr>
<tr><th colspan="3">CVRD Local Procurement</th></tr>
<tr><th></th><th>Volume of Foods</th><th>Annually</th></tr>
<tr><td>Kerry Park Recreation Centre</td><td><ul><li>CVRD board dinner and lunch meetings; ~100 meals/month.</li><li>$25,000/year in arena concession.</li><li>$12,000/year in sports fields concession.</li><li>$38 - 40,000/year in little coffee shop.</li><li>Buys lots of French fries, chicken strips, onion rings (concession type foods).</li></ul></td><td><ul><li>12,000 meals x $2.50 = 30,000</li><li>$25,000 + $12,000 + $39,000 = $76,000/year</li></ul></td></tr>
<tr><td></td><td></td><td><ul><li>Total economic contribution: $106,000/year</li></ul></td></tr>
</table>

# Appendix C – Resources Reviewed


- Agriculture in Brief, Cowichan Valley Regional District. 2016. Statistics Canada.
- BC Food and Beverage Manufacturing Facilities. 2017. Statistics Canada.
- BC Government Health Care Market Development Strategy. 2019. Ference & Company.
- Bringing more BC food into BC government facilities. 2019. Ministry of Agriculture.
- Creating Climate Change Resilience: Enhancing Food Processing in the CVRD. 2014. Sustainability Ventures.
- Cowichan Region Agricultural Equipment Library. 2018. Cowichan Green Community, Foster Richardson.
- Economic Development Cowichan, Strategic Plan 2018-2022. Cowichan Valley Regional District.
- Eight Key Success Factors for BC Food Aggregation Initiatives. Prepared by Greenchain Consulting, in association with Urban Food Strategies and Sustainability Ventures. Prepared for BC Ministry of Agriculture.
- FeedBC Small-Scale Food Producer Feedback on Supplying Institutions Presentation. 2019. Darren Stott & Tim Reeve.
- Feed BC Value Chain Advisory Group, September 2018 Meeting Notes &, Recommendations. (2018). Darren Stott & Tim Reeve.
- Growing Connections: a handbook for purchasers + farmers in the Cowichan Region. (2013). Cowichan Green Community.
- Nourishing the Future of Food in Health Care, A Pan-Canadian Policy Scan. 2018. Jennifer Reynolds, Japji Anna Bas, Beth Hunter, Cheryl Hsu.
- Regional Collaboration Framework, Backgrounder. 2018. Cowichan Valley Regional District.
- Selling BC Food to BC's Government-Supported Facilities. October 2019. Prepared for the BC Ministry of Agriculture by FS Strategy.
- Strategic Analysis of Aggregation Initiative in BC. 2019. Prepared by Greenchain Consulting in association with Urban Food Strategies and Sustainability Ventures. Prepared for BC Ministry of Agriculture.
- Top 20 Food Opportunities in BC Healthcare. 2018. A FeedBC Resource.
- Value Chain Coordination Study. 2019. fsStrategy. A FeedBC Summary Report.